

Claims

- [c1] A method of treating a subterranean formation comprising the steps of:
 - (a) providing an aqueous suspension of colloidal particles and
 - (b) injecting down a well an aqueous fluid comprising a thickening amount of a viscoelastic surfactant.
- [c2] The method of claim 1, wherein the permeability of said subterranean formation is between about 5 and about 100 md.
- [c3] The method of claim 2, wherein the permeability of said subterranean formation is between about 10 and about 50 md.
- [c4] The method of claim 1, wherein said colloidal particles are of a material selected from the group consisting of silica, aluminum oxide, antimony oxide, tin oxide, cerium oxide, yttrium oxide and zirconium oxide.
- [c5] The method of claim 1, wherein the particles are spherical.
- [c6] The method of claim 5, wherein the particles have a di-

ameter ranging from about 8nm to about 250nm.

- [c7] The method of claim 1, wherein the particles are elongated.
- [c8] The method of claim 7, wherein the particles have a length between about 100 and about 300nm.
- [c9] The method of claim 1, wherein said viscoelastic surfactant is an anionic surfactant.
- [c10] The method of claim 1, wherein said viscoelastic surfactant is a cationic surfactant.
- [c11] The method of claim 1, wherein said viscoelastic surfactant is a zwitterionic surfactant.
- [c12] A method of treating a subterranean formation comprising the steps of:
 - a)providing an aqueous suspension of colloidal particles and
 - (b)injecting down a well an aqueous fluid comprising a viscoelastic surfactant a hydrophobically-modified polymer, said hydrophobically-modified polymer being present at a concentration between approximately its overlap concentration c^* and approximately its entanglement concentration c_e .
- [c13] The method of claim 12, wherein the permeability of said

subterranean formation is between about 5 and about 100 md.

[c14] The method of claim 13, wherein the permeability of said subterranean formation is between about 10 and about 50 md.

[c15] The method of claim 12, wherein said colloidal particles are of a material selected from the group consisting of silica, aluminum oxide, antimony oxide, tin oxide, cerium oxide, yttrium oxide and zirconium oxide.

[c16] The method of claim 12, wherein the particles are spherical.

[c17] The method of claim 17, wherein the particles have a diameter ranging from about 8nm to about 250nm.

[c18] The method of claim 12, wherein the particles are elongated.

[c19] The method of claim 18, wherein the particles have a length between about 100 and about 300nm.

[c20] The method of claim 1, wherein said viscoelastic surfactant is an anionic surfactant.

[c21] The method of claim 12, wherein said viscoelastic surfactant is a cationic surfactant.

- [c22] The method of claim 12, wherein said viscoelastic surfactant is a zwitterionic surfactant.
- [c23] The method of claim 1 wherein the colloidal particles are added at a concentration between about 0.1 and 0.5 wt% .
- [c24] The method of claim 12 wherein the colloidal particles are added at a concentration between about 0.1 and 0.5 wt%.